

Chapter 8

Preparation and Recovery Drills

PRT sessions will include the following elements: Preparation, Activity, and Recovery. Exercises performed during preparation appropriately ready soldiers for more intense PRT activities. Preparation will consist of five repetitions of Calisthenic Drill 1 and one repetition of Guerrilla Drill 1. Preparation will last approximately 15 minutes. The Recovery Drill is performed at the end of every PRT session to gradually and safely bring the body back to its pre-exercise state. Recovery should also carry over until the next PRT session is performed. Restoring adequate hydration and energy through proper nutrition and adequate sleep allows the body to refuel and rest.

SECTION I – PREPARATION DRILL

8-1. The purpose of Preparation is to ready the soldier for the PRT activities that follow. The objectives of Preparation are to:

- increase body temperature and heart rate
- increase pliability of joints and muscles
- increase responsiveness of nerves and muscles

8-2. Since PRT sessions are generally limited to one hour, Preparation must be brief and thorough. While many athletic teams spend up to an hour or more to fully prepare for their sport, soldiers don't have that luxury. Calisthenics and guerrilla exercises are the recommended modalities to efficiently prepare soldiers for PRT activities. The Preparation Drill is performed at the beginning of every PRT session. **The Preparation Drill consists of Calisthenic Drill 1 (five repetitions) and Guerrilla Drill 1 (one repetition). Preparation should last approximately 15 minutes.** Calisthenic Drill 1 provides sufficient joint range of motion, making rotation of the joints unnecessary. Calisthenics also fully lengthen key muscle groups, eliminating the need for stretching exercises. The guerrilla exercises increase muscle temperature, heart rate, and responsiveness of nerves in muscle tissues. The Preparation Drill is excellent preparation for running, obstacle course negotiation, and all other vigorous PRT activities.

Calisthenic Drill 1; Exercise 1

The Bend and Reach

Purpose: This exercise develops the ability to squat and reach through the legs. It is a lead-up exercise for the forward roll. It also serves to prepare the spine and extremities for more vigorous movements. From a flexibility perspective, it takes the hips and spine through full flexion.

Starting Position: Straddle stance with arms overhead.

Cadence: Slow.

Count:

1. Squat with the heels flat as the spine rounds forward to allow the straight arms to reach as far as possible between the legs.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ From the starting position, ensure that soldiers have their hips set, their abdominals tight, and their arms as fully overhead as possible.
- ☐ The head flexes to allow the gaze to the rear. This brings the head in line with the bend of the trunk.
- ☐ The heels remain flat.
- ☐ On counts two and four, do not go past the starting position.

Precautions: To protect the spine, this exercise should be performed at a slow cadence. Move into the count one position in a slow, controlled manner. Do not bounce into and out of this position in a ballistic manner, as this may place an excessive load on the spine.

Calisthenic Drill 1; Exercise 2

The Rear Lunge and Reach

Purpose: This exercise stimulates balance, opens up the hip and trunk on the side of the lunge and develops leg strength.

Starting Position: Regular stance with hands on hips.

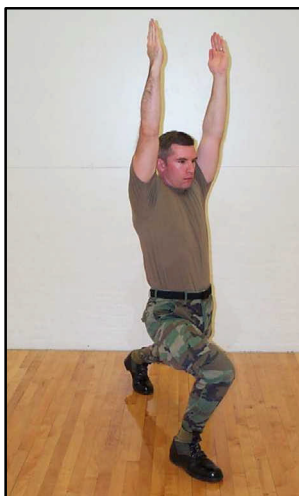
Cadence: Slow.

Count:

1. Take an exaggerated step backward with the left leg, touching down with the ball of the foot while raising both arms fully overhead.
2. Return to the starting position.
3. Repeat count one with the right leg.
4. Return to the starting position.



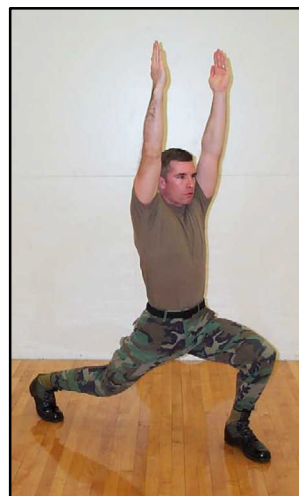
Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ Maintain straightness of the spine by keeping the abdominal muscles tight throughout the motion.
- ☐ Reach fully overhead with both arms. Arms should be shoulder width apart with palms facing one another with the fingers and thumb extended and joined.
- ☐ After the foot touches down, allow the body to continue to lower. This promotes a better opening of the hip and trunk.
- ☐ Keep the feet directed forward. On the lunge, take the leg straight to the rear, as if on a railroad track.

Precautions: On counts one and three, move into position in a slow, controlled manner. If the cadence is too fast, it will be difficult to go through a full range of motion.

Variation: Soldiers with upper extremity profiles may keep the hands on the hips.

Calisthenic Drill 1; Exercise 3

The High Jumper

Purpose: This exercise reinforces correct jumping and landing, stimulates balance and coordination, and develops explosive strength.

Starting Position: Feet shoulder distance apart with the hips and knees bent. The trunk is straight but leaning forward at about 45-degrees. The arms are straight and directed to the rear.

Cadence: Moderate.

Count:

1. Swing arms forward and jump a few inches.
2. Swing arms backward and jump a few inches.
3. Swing arms forward and vigorously overhead while jumping forcefully.
4. Repeat count two. On the last repetition, return to the starting position.



Starting Position



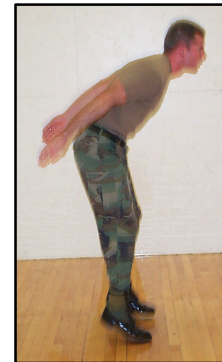
Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ At the starting position, the shoulders, the knees, and the balls of the feet should form a straight vertical line.
- ☐ On count three, the arms should be extended fully overhead. The trunk and legs should also be in line.
- ☐ On each landing, the feet should be directed forward and maintained at shoulder distance apart. The landing should be “soft” and proceed from balls of the feet to the heels. The vertical line from the shoulders through the knees to the balls of the feet should be demonstrated on each landing.

Precautions: Don’t exaggerate count three on the first few repetitions, gradually progress to higher jumps.

Calisthenic Drill 1; Exercise 4

The Rower

Purpose: This exercise improves the ability to move in and out of the supine position to a seated posture. It coordinates the action of the trunk and extremities while offering a strong challenge to the abdominal muscles.

Starting Position: Supine position, arms overhead, feet together and pointing upward. The chin is tucked and the head is 1-2 inches above the ground. Arms are shoulder width apart with palms facing with fingers and thumb extended and joined.

Cadence: Slow.

Count:

1. Sit up while swinging arms forward and bending at the hip and knees. At the end of the motion, arms will be parallel to ground, palms facing inward.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ At the starting position, the low back must not be arched excessively off the ground. To prevent this, tighten the abdominal muscles to tilt the pelvis and low back toward the ground.
- ☐ At the end of count one, the feet are flat and pulled near the buttocks. The legs stay together throughout the exercise.

Precautions: Soldiers that arch their back during the rower risk trunk injury and should not do further repetitions.

Calisthenic Drill 1; Exercise 5

The Power Squat

Purpose: This exercise reinforces proper lifting while developing strength of the back and lower extremities.

Starting Position: Straddle stance with hands on hips.

Cadence: Slow.

Count:

1. Squat while raising the arms to parallel with the ground, palms facing inward.
2. Return to the starting position.
3. Slightly bend the knees while bending forward at the waist and reaching toward the toes.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ❑ At the end of count one, the shoulders, knees and balls of the feet should be aligned perpendicular to the ground. The heels remain on the ground and the back is straight.
- ❑ At the end of count three, the back is straight, the knees are slightly bent, and the head is in line with the trunk.

Precautions: Soldiers who round their backs do not receive the full benefit of this exercise and may be placing their spines at risk for injury. Allowing the knees to go beyond the toes on count one will increase stress to the knees.

Calisthenic Drill 1; Exercise 6**The Windmill**

Purpose: This exercise develops the ability to safely bend and rotate the trunk. It challenges the muscles of the trunk, legs, and shoulder girdle.

Starting Position: Straddle stance with arms sideward, palms down.

Cadence: Slow.

Count:

1. Bend the hips and knees while rotating to the left. Reach toward the outside of the left foot with the right hand. The left arm is pulled rearward to maintain a straight line with the right.
2. Return to the starting position.
3. Repeat count one to the right.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ From the starting position, feet are straight ahead, arms parallel to the ground, hips set, and abdominals tight.
- ☐ On counts one and three, ensure that the knees bend during the rotation. This will prevent the trunk from bearing all the stress of the exercise.
- ☐ Head and eyes are directed to the left foot on count one and the right foot on count three.

Precautions: Range of motion on counts one and three is determined by the individual's limitations.

Variation: Soldiers with upper extremity profiles may start with hands on hips and reach with the right arm only on count one and the left arm only on count three.

Calisthenic Drill 1; Exercise 7

The Forward Lunge and Reach

Purpose: This exercise stimulates balance and develops leg strength. The ability to lunge forward is an essential skill needed to perform many soldier tasks.

Starting Position: Regular stance with hands on hips.

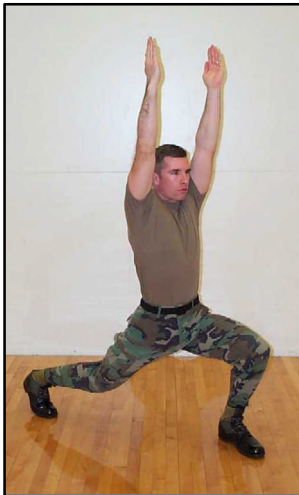
Cadence: Slow.

Count:

1. Take an exaggerated step forward with the left leg while raising both arms fully overhead. Allow the left knee to bend until the thigh is parallel to the ground.
2. Return to the starting position.
3. Repeat count one with the right leg.
4. Return to the starting position.



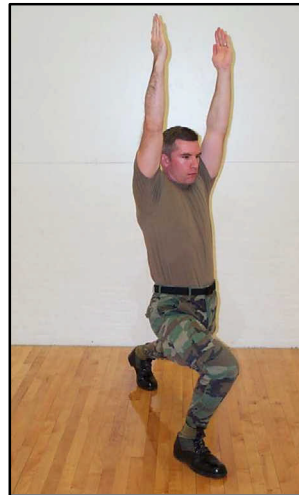
Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ Maintain straightness of the spine by keeping the abdominal muscles tight throughout the motion.
- ☐ Reach fully overhead with both arms.
- ☐ On the lunge, step straight forward, keep the feet directed forward. Viewed from the front, the feet are hip width apart both at the starting position and at the end of counts one and three.
- ☐ The rear knee may bend naturally but not touch the ground.
- ☐ The heel of the rear foot should be up.

Precautions: On counts one and three, move into position in a controlled manner. Spring off of the forward leg to return to the starting position. This avoids jerking the trunk to create momentum.

Variation: Soldiers with upper extremity profiles may keep the hands on hips.

Calisthenic Drill 1; Exercise 8**The Turn and Reach**

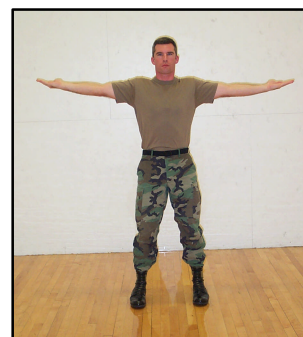
Purpose: This exercise develops controlled trunk rotation while increasing chest and shoulder range of motion.

Starting Position: Straddle stance with arms sideward, palms up.

Cadence: Slow

Count:

1. Rotate the trunk to the left to bring the arms in line from front to rear. The head and eyes remain directed forward.
2. Return to the starting position.
3. Repeat count one to the right.
4. Return to the starting position.



Starting Position



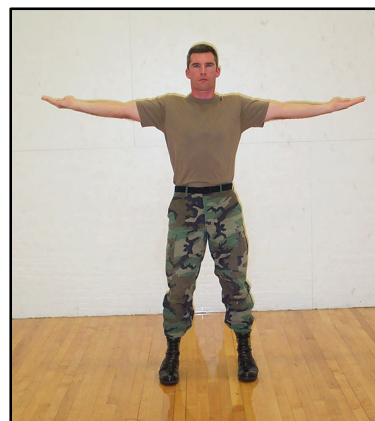
Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ Maintain straightness of the trunk throughout the motion.
- ☐ Keep the abdominal muscles tight throughout to prevent excessive rotation.
- ☐ Keep the feet directed forward with minimal hip and knee movement.

Precautions: If soldiers cannot reach the standard of counts one and three, rotate to their individual limitations.

Calisthenic Drill 1; Exercise 9

The Squat Thrust

Purpose: This exercise develops efficient movement to and from the ground. It promotes stability of the trunk and shoulder girdle, and range of motion of the hips and knees.

Starting Position: Position of attention.

Cadence: Slow.

Count:

1. Squat and place the hands on the ground, shoulder width apart.
2. Thrust legs backward to a front leaning rest position.
3. Return to position one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ The heels are together and raised on counts one and three.
- ☐ The hands are in line with the shoulders with fingers spread (middle finger pointed straight ahead) on counts one and three.
- ☐ On count two, the abdominal muscles must be kept tight to maintain straightness from head to heels.

Precautions: Soldiers with knee limitations may squat to their comfort zone. Do not allow the trunk to sag on count two.

Variation: Soldiers that cannot prevent the trunk from sagging on count two may quickly step in and out of the front leaning rest position (counts two and three, leading with the left leg).

Calisthenic Drill 1; Exercise 10**The Squat Stepper**

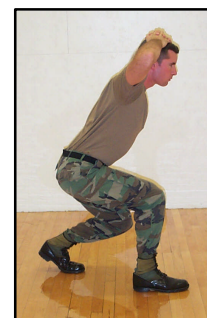
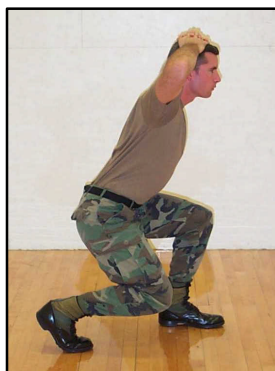
Purpose: This exercise develops functional strength of the legs, especially the hips and hamstrings. It is a lead up to the Squat Jumper in Calisthenic Drill 2.

Starting Position: Crouch in a staggered stance with left foot to the rear with heel up. The right leg bears most of the body weight with the foot flat. Bend slightly forward at the hips, keeping the trunk straight. The hands are interlaced on top of the head, with the elbows pulled to the rear.

Cadence: Slow.

Count:

1. Rise out of the crouch, stepping forward with the left foot to the regular stance.
2. Return to crouch with the right foot to the rear.
3. Repeat count one with the right leg.
4. Return to the starting position.

**Starting Position****Count 1****Count 2****Count 3****Count 4****Check Points:**

- ☐ Maintain straightness of the trunk throughout the motion.
- ☐ In the crouch, align the shoulders with the knee and ball of the foot of the forward leg.
- ☐ Keep the feet directed forward and elbows behind the ears.

Precautions: Soldiers should assume the crouch positions within individual limitations.

Variation: Soldiers with upper extremity profiles may perform the exercise with hands on hips.

Calisthenic Drill 1; Exercise 11

The Bent-Leg Body Twist

Purpose: This exercise strengthens trunk muscles and promotes control of trunk rotation.

Starting Position: Supine with the hips and knees bent to 90-degrees. Arms are at shoulder level with elbows straight and palms down with fingers spread. Legs and feet are together.

Cadence: Slow.

Count:

1. Rotate the legs to the left while keeping the upper back and arms in place.
2. Return to the starting position.
3. Repeat count one to the right.
4. Return to the starting position.



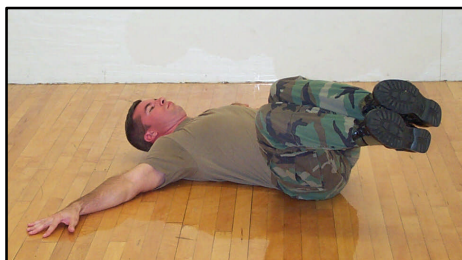
Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ Tighten abdominal muscles in the starting position. Maintain this contraction throughout the exercise.
- ☐ The head should be 1-2 inches off the ground with the chin slightly tucked.
- ☐ Ensure that the hips and knees maintain their 90-degree angles.
- ☐ Attempt to rotate the legs to about 8-10 inches off the ground.
- ☐ The opposite shoulder must not rise off of the ground.

Precautions: Soldiers should not rotate the legs to a point beyond which they can no longer maintain an abdominal contraction.

Calisthenic Drill 1; Exercise 12**The Push-Up**

Purpose: This exercise strengthens muscles of the chest, shoulders, arms, and trunk. When proper trunk position is maintained, it develops trunk stability.

Starting Position: Perform a squat thrust to move into the front leaning rest, maintaining the body straight from head to heels. Body weight is supported on the hands and balls of the feet.

Cadence: Moderate.

Count:

1. Bend the elbows, lowering the body until the upper arms are parallel with the ground.
2. Return to the starting position.
3. Repeat count one.
4. Return to the starting position.



Starting Position



Count 1



Count 2



Count 3



Count 4

Check Points:

- ☐ The hands are in line with the shoulders with fingers spread (middle fingers point straight ahead).
- ☐ On counts one and three the upper arms stay close to the trunk, elbows pointing rearward.
- ☐ On counts two and four the elbows straighten but do not lock.
- ☐ The trunk must not sag. To prevent this, tighten the abdominal muscles while in the starting position and maintain this contraction throughout the exercise.

Precautions: Soldiers should cease repetitions or go to their knees when the trunk begins to sag or counts two and four involve jerking movements.

Variations: Soldiers may perform the push-up from their fists if wrist discomfort is an issue. When no longer able to execute the push-up with proper form, soldiers may drop to their knees for the second and fourth counts. They must still maintain a straight line from head to knees.

Guerrilla Drill 1; Exercise 1

Verticals

This exercise promotes a strong running posture. Keep a tall stance with a stable, upright trunk. Bring the hips quickly to 90-degrees of bend without raising the knees above waist level. Ground contact should be primarily with the balls of the feet. There should not be any back swing of the legs. Pretending there is a wall running down your back to the ground may help you keep the legs to the front. Arm swing is strong and smooth. Once soldiers master verticals, they can add a variation that involves accelerating the tempo at a certain point. The leader must ensure that form remains ideal even during the accelerated movements.



Guerrilla Drill 1; Exercise 2

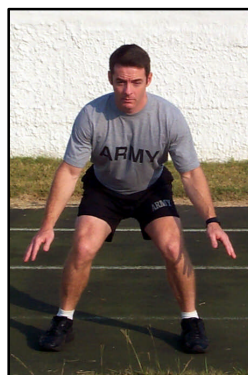
Laterals

This exercise trains soldiers to move laterally. Begin in the straddle stance, slightly crouched, with the back straight. Quickly step to the side by rising slightly and bringing the trailing leg to the lead leg. Next hop to the side and land back in the crouch with the knees shoulder width apart. Always face the same direction so half the time is spent going left and half going right.



Guerrilla Drill 1; Exercise 3**Crossovers**

This is similar to laterals, shuffle except that the trailing leg crosses first to the front and then to the back. Keep the body oriented in the same direction on both the down and back portion of this drill. As soldiers master this movement, have them simulate holding their weapon and visually scanning the horizon.

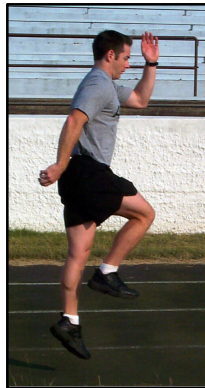
**Guerrilla Drill 1; Exercise 4****The Backward Run**

On this exercise, soldiers should work on reaching back with the rear leg and pushing off forcefully with the forward leg. Keep the body upright, not bent forward or backward at the waist.



Guerrilla Drill 1; Exercise 5**The Power Skip**

This exercise coordinates jumping from a single leg and promotes a powerful push-off from the ankle. The sequence of movements is to first step and then hop and land on the same leg, followed by the same action with the opposite leg. Soldiers should incorporate large arm swings as they jump in order to get better elevation. Start slowly and progress the tempo with each 25-yard interval.

**Guerrilla Drill 1; Exercise 6****Accelerations**

Run at 50 % of maximal effort then, accelerate to a near maximal effort smoothly over 25 yards. At the point of acceleration, lean slightly forward, push harder off of the back foot, raise the knees slightly higher, and increase the tempo of arm swing. Do not attempt to reach max speed all at once.



SECTION III - RECOVERY DRILL

8-3. The purpose of the Recovery Drill is to develop range of motion and stability to enhance performance, control injuries, and gradually bring the body back to its pre-exercise state. The objectives of Recovery are to:

- gradually bring body temperature and heart rate to their resting states,
- maintain/improve flexibility and stability, and
- restore hydration and energy through proper nutrition.

8-4. The Recovery Drill is performed at the end of every PRT session, gradually progressing from performing each exercise for 10 seconds to 20 seconds. This drill will take approximately six to ten minutes to conduct.

Recovery Drill, Exercise 1

The Groin and Hamstring Stretch

Purpose: This exercise develops flexibility of the groin and hamstring muscles.

Starting Position: Regular Stance, hands on hips.

Exercise Position 1: On the command, "*Exercise Position 1, MOVE*", step wide, lunging to your left with your left foot, keeping your right foot pointing straight ahead. Place the left forearm on the left thigh with the right hand on the left wrist. Gently push the left leg rearward and lower the body (hold for 10-30 seconds).

Exercise Position 2: On the command, "*Exercise Position 2, MOVE*", straighten your left leg, shifting your weight rearward and point the toes of your left foot upward and back toward your left shin. Bend toward your left leg, reaching with both arms (hold for 10-30 seconds).

Exercise Position 3: On the command, "*Exercise Position 3, MOVE*", perform the movements of Exercise Position 1 to your right.

Exercise Position 4: On the command, "*Exercise Position 4, MOVE*", perform the movements of Exercise Position 2 to your right, then slowly return to the Starting Position.



Starting Position



Exercise Position 1



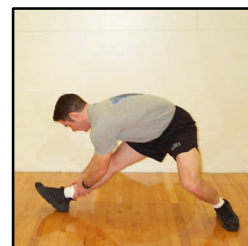
Exercise Position 2



Starting Position



Exercise Position 3



Exercise Position 4

Check Points:

- ☐ In exercise positions 1 and 3, the trunk remains directed forward while the bent leg is directed to the side.
- ☐ In exercise positions 2 and 4, keep the back straight as the trunk leans forward.

Recovery Drill, Exercise 2

The Rear Lunge and Reach

Purpose: This exercise develops flexibility of the hip flexors and trunk muscles.

Starting Position: On the command, "*Starting Position, MOVE*", assume the Regular Stance, hands on hips.

Exercise Position 1: On the command, "*Exercise Position 1, MOVE*", step rearward with your left foot, with both arms reaching overhead. This is the same position as count 1 of the Rear Lunge and Reach in Calisthenic Drill 1 (hold for 10-30 seconds).

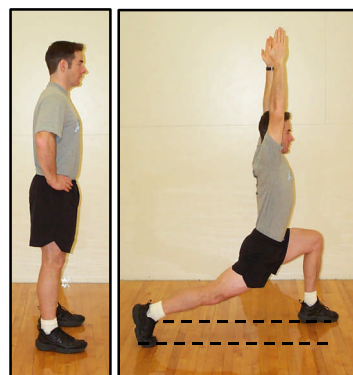
Exercise Position 2: On the command, "*Exercise Position 2, MOVE*", step back to the Starting Position and perform the movements of Exercise Position 1 with the right leg, then return to the Starting Position.



Starting Position



Exercise Position 1



Exercise Position 2

Check Points:

- ☐ Maintain straightness of the back by keeping the abdominal muscles tight throughout the motion.
- ☐ Reach overhead with both arms. Arms should be shoulder width apart with palms facing inward with the fingers and thumb extended and joined.
- ☐ When assuming exercise positions 1 and 2, allow the body to continue to lower while holding the stretch. This promotes a better opening of the hip and trunk.
- ☐ Keep the feet directed forward. On the lunge, move the leg straight to the rear, as if standing on a railroad track.

Recovery Drill, Exercise 3

The Flex and Extend Stretch

Purpose: This exercise develops flexibility of the low back, hip, calf, hip flexor and abdominal muscles.

Starting Position: On the command, "*Starting Position, MOVE*", assume the Front Leaning Rest Position.

Exercise Position 1: On the command, "*Exercise Position 1, MOVE*", bend at your waist and lower the heels toward the ground while keeping your legs straight (hold for 10-30 seconds), then return to the Starting Position.

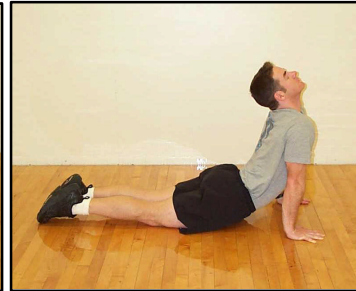
Exercise Position 2: "*Exercise Position 2, MOVE*", lower your body, sagging in the middle, keeping your arms straight and look upward (hold for 10-30 seconds), then slowly return to the Starting Position.



Starting Position



Exercise Position 1



Exercise Position 2

Check Points:

- ☐ In exercise position 1, the legs and back are straight.
- ☐ In exercise position 2, the thighs and pelvis may rest on the ground. Relax the back muscles while bearing bodyweight through the straight arms.

Recovery Drill, Exercise 4

The Turn and Reach

Purpose: This exercise develops controlled trunk rotation while increasing chest and shoulder range of motion.

Starting Position: Straddle stance with arms sideward, palms up.

Exercise Position 1: On the command, "*Exercise Position 1, MOVE*", rotate the trunk to the left to bring the arms in line from front to rear. The head and eyes remain directed forward. Continue to pull the arms toward the front and rear. Then return to the starting position.

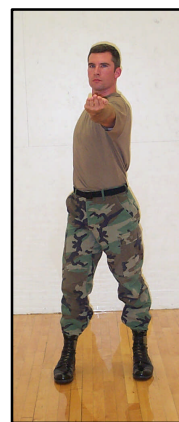
Exercise Position 2: On the command, "*Exercise Position 2, MOVE*", repeat count one to the right. Then return to the starting position.



Starting Position



Exercise Position 1



Exercise Position 2

Check Points:

- ☐ Maintain straightness of the trunk throughout the motion.
- ☐ Keep the abdominal muscles tight throughout to prevent excessive rotation.
- ☐ Keep the feet directed forward with minimal hip and knee movement.

Precautions: If soldiers cannot reach the standard of counts one and three, rotate to their individual limitations.

Recovery Drill, Exercise 5

The Side Bridge (Left/Right)

Purpose: The side bridge develops the muscles on the side of the trunk and control of the shoulder and hip.

Starting Position: On the command, "*Starting Position, MOVE*", assume the front leaning rest position, then turn and lie on the left side. Form a fist with the left hand and move left forearm perpendicular to the body. Place the left foot on top of the right foot with the left leg behind the right.

Exercise Position: On the command, "*Exercise Position, MOVE*", firmly press into the ground with the supporting forearm, then raise the body off the ground until straight from head to feet. Hold this position 10 seconds and continue to breathe normally. The body will be supported by the left elbow, forearm, fist and right foot. Repeat these movements on the right side.



Starting Position



Exercise Position

Check Points:

- ☐ Maintain a contraction of the muscles around the shoulder throughout the exercise.
- ☐ Do not let the trunk rotate forward or backward.
- ☐ Do not let the hips move rearward.

Recovery Drill, Exercise 6

The Hip Stretch

Purpose: This exercise develops flexibility of the hip muscles.

Starting Position: On the command, "*Starting Position, MOVE*", assume a supine position on the ground.

Exercise Position 1: On the command, "*Exercise Position 1, MOVE*", Raise both feet off the ground and cross your left ankle over your right thigh. Grasp the left knee with both hands and pull it towards your right shoulder while raising the right thigh toward the chest. Hold this position for 10-30 seconds, then slowly return to the Starting Position.

Exercise Position 2: "*Exercise Position 2, MOVE*", perform the movements of Exercise Position 1, crossing your right ankle over your left thigh. Grasp the right knee with both hands and pull it towards the left shoulder while raising the left knee toward the chest. Hold this position for 10-30 seconds, then slowly return to the Starting Position.



Starting Position



Exercise Position 1



Exercise Position 2

Check Points:

- ☐ Keep the back flat on the ground.
- ☐ Raise the head 1-2 inches from the ground, chin slightly tucked.

SECTION III – SUMMARY

8-5. Preparation and Recovery are essential elements of every PRT session. Performance of Preparation and Recovery Drills ensures enhanced performance and injury control.